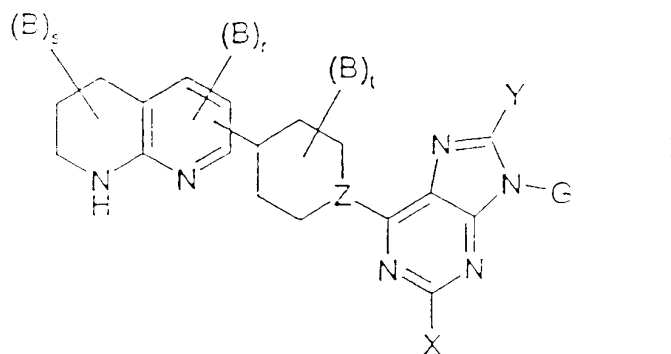


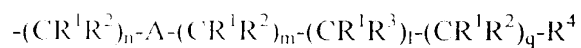
AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended)

A compound selected from the group consisting of a compound of the formula



in which G is



A is selected from the group consisting of a direct bond,

$-C(O)NR^5-$, $-NR^5-C(O)-$, $-C(O)-$, $-NR^5-$, $-O-$, $-S-$, $-S(O)-$,

$-S(O)_2-$, (C_2-C_4) -alkynediyl, (C_2-C_4) -alkenediyl and (C_5-C_{14}) -arylene wherein ~~where in~~ the arylene residue one, two, three, four or five ring carbon atoms can be replaced by a heteroatom selected from the group consisting of nitrogen, oxygen and sulfur, or a divalent residue of a 3-membered to 7-membered saturated or unsaturated ring which can contain one or two ring heteroatoms selected from the group consisting of nitrogen, sulfur and oxygen and which can be monosubstituted or disubstituted by a member selected from the group consisting of $-O$, $=S$ and R^3 .

B are individually selected from the group consisting of (C₁-C₁₈)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl, (C₅-C₁₄)-(C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl-, fluorine, chlorine, bromine, hydroxy, cyano, trifluoromethyl, nitro, hydroxycarbonyl-, (C₁-C₆)-alkoxy, (C₁-C₆)-alkoxy-(C₁-C₆)-alkyl-, (C₁-C₆)-alkoxycarbonyl-, (C₁-C₆)-alkylcarbonyl-, (C₅-C₁₄)-arylcarbonyl-, (C₁-C₆)-alkylamino-carbonyl-, (C₁-C₆)-alkoxy-(C₁-C₆)-alkoxy-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylcarbonyl-, (C₁-C₆)-alkanoylamino-, (C₁-C₆)-alkylsulfonylamino-, (C₅-C₁₄)-arylsulfonylamino-, (C₁-C₆)-alkylamino-, di-((C₁-C₆)-alkyl)amino-, (C₁-C₆)-alkylsulfonyl-, aminosulfonyl-, (C₅-C₁₄)-arylsulfonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylsulfonyl-, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl;

X is selected from the group consisting of hydrogen, NR⁶R⁶⁺, fluorine, chlorine, bromine, -OR⁶, -SR⁶, hydroxy-(C₁-C₆)-alkyl-NH-, (hydroxy-(C₁-C₆)-alkyl)₂N-, amino-(C₁-C₆)-alkyl-NH-, (amino-(C₁-C₆)-alkyl)₂N-, hydroxy-(C₁-C₆)-alkyl-O-, hydroxy-(C₁-C₆)-alkyl-S- and -NH-C(O)-R⁶);

Y is selected from the group consisting of R⁶, fluorine, chlorine, bromine, cyano, -NR⁶R⁶⁺-, -OR⁶, -SR⁶ and hydroxy-(C₁-C₆)-alkyl-NH;

Z is N or $\begin{array}{c} / \\ -\text{CH} \\ \backslash \end{array}$;

R¹ and R² are individually selected from the group consisting of hydrogen, fluorine, chlorine, cyano, nitro, (C₁-C₁₀)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-

heteroaryl-(C₁-C₈)-alkyl-, R⁶-O-R⁷, R⁶-S(O)_p-R⁷, R⁶S(O)₂NHR⁷, R⁶OC(O)NHR⁷ and R⁶R⁶⁺N-R⁷;

R³ is selected from the group consisting of hydrogen, fluorine, chlorine, cyano, nitro, (C₁-C₁₈)-alkyl, (C₂-C₁₈)-alkenyl, (C₂-C₁₈)-alkenyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl-, R⁶-O-R⁷, R⁶R⁶⁺R⁷, R⁶C(O)-O-R⁷, R⁶C(O)R⁷, R⁶OC(O)R⁷, (R⁶N(R⁶)C(O)OR⁷, R⁶S(O)_pN(R⁵)R⁷, R⁶OC(O)N(R⁵)R⁷, R⁶C(O)N(R⁵)R⁷, R⁶N(R⁶⁺)C(O)N(R⁵)R⁷, R⁶N(R⁶⁺)S(O)_pN(R⁵)R⁷, R⁶S(O)_pR⁷, R⁶SC(O)N(R⁵)R⁷, R⁶N(R⁶⁺)C(O)R⁷ and R⁶N(R⁶⁺)S(O)_pR⁷, ~~where alkyl can be mono-unsaturated or poly-unsaturated and~~ where alkyl, cycloalkyl, aryl, and heteroaryl can be monosubstituted or polysubstituted by a member selected from the group consisting of R⁶, fluorine, chlorine, bromine, cyano, trifluoromethyl, R⁶R⁶⁺NR⁷, nitro, R⁶OC(O)R⁷, R⁶C(O)R⁷, R⁶N(R⁶⁺)C(O)R⁷, R⁶N(R⁶⁺)S(O)_pR⁷ and R⁶-O-R⁷, and where the R³S are independent of one another and can be identical or different;

R⁴ is selected from the group consisting of -C(O)R⁸, -C(S)R⁸, -S(O)_pR⁸, -S(O)_pR⁸, -P(O)R⁸R⁸⁺ and a 4-membered to 8-membered saturated or unsaturated heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur;

~~R₅~~-R⁵ is selected from the group consisting of hydrogen, (C₁-C₁₀)-alkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl and (C₅-C₁₄)aryl-(C₁-C₈)-alkyl;

R⁶ and R⁶⁺ are individually selected from the group consisting of hydrogen, (C₁-C₁₈)-

alkyl, (C₃-C₁₈)-alkyl, (C₃-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, C₅-C₁₄)-heteroaryl and (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl- where aryl, heteroaryl, cycloalkyl and alkyl can be substituted one, two or three times by individual substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, trifluoromethyl, nitro, hydroxycarbonyl-, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkoxy-(C₁-C₆)-alkyl-, (C₁-C₆)-alkoxycarbonyl-, (C₁-C₆)-alkylcarbonyl-, (C₁-C₆)-alkylaminocarbonyl-, (C₁-C₆)-alkoxy-(C₁-C₆)-alkoxy-, (C₅-C₁₄)-arylcabonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylcarbonyl-, (C₁-C₆)-alkanoylamino-, (C₅-C₁₄)-arylsulfonylamino-, (C₁-C₆)-alkylsulfonylamino-, (C₁-C₆)-alkylamino-, di((C₁-C₆)-alkyl)amino-, (C₁-C₆)-alkylsulfonyl, (C₁-C₆)-alkylaminosulfonyl-, (C₅-C₁₄)-arylamino-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylaminosulfonyl, (C₅-C₁₄)-arylsulfonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylsulfonyl, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl;

R⁷ is (C₁-C₄)-alkanediyl or a direct bond, where all R⁷ are independent of one another and can be identical or different;

R⁸ and R⁸⁺ are individually selected from the group consisting of hydroxy, (C₁-C₈)-alkoxy, (C₅-C₁₄)-aryl-(C₁-C₄)-alkoxy-, (C₅-C₁₄)-aryloxy, (C₁-C₈)-alkylcarbonyloxy-(C₁-C₄)-alkoxy-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylcarbonyloxy-(C₁-C₈)-alkoxy-, NR⁶R⁶, (di-((C₁-C₈)-alkyl)amino)carbonylmethyloxy-, (di((C₅-C₁₄)-aryl-(C₁-C₈)-alkyl)amino)carbonylmethyloxy-, (C₅-C₁₄)-arylamino-, an amino acid, N-((C₁-C₄)-alkyl)piperidin-4-yloxy-, 2-methylsulfonylethoxy-, 1,3-thiazol-2-ylmethyloxy-, 3-pyridylmethyloxy-, 2-(di-((C₁-C₄)-alkyl)amino)-ethoxy and Q⁻(CH₃)₃N⁺-CH₂-CH₂-O- in which Q⁻ is a physiologically tolerable anion;

n is zero, one, two, three, four or five;

m is zero, one, two, three, four or five;

i is zero or one;

q is zero, one or two;

r is zero, one or two;

s is zero, one two or three;

t is zero, one, two, three, four, five, six, seven or eight;

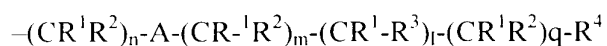
p is zero, one or two, where all numbers p are independent of one another and can be identical or different;

in all their stereoisomeric forms and mixtures thereof in all ratios, and their non-toxic, physiologically tolerable salts ;

~~where, instead of the purine structure shown in formula I, also a 3-deazapurine structure, a 7-deazapurine structure or a 7-deaza-8-azapurine structure can be present.~~

Claim 2 (currently amended)

A compound of claim 1, wherein G is



A is selected from the group consisting of a direct bond,

-C(O)NR⁵-, -NR⁵C(O)-, -C(O)-, -NR⁵-, -O-, -S-, -S(O)₂-, (C₂-C₄)-alkenediyl, (C₂-C₄)-alkenediyl, (C₅-C₁₄)-arylene where in the arylene residue one, two, three, four or five ring carbon atoms can be replaced by a heteroatom selected from the group consisting of

nitrogen, oxygen and sulfur, and a divalent residue of a 3-membered to 7-membered saturated or unsaturated ring which can contain one or two ring heteroatoms selected from the group consisting of nitrogen, sulfur and oxygen and which can be monosubstituted or disubstituted by a member selected from the group consisting of =O, =S and R³;

B is selected from the group consisting of (C₁-C₁₂)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl-, fluorine, chlorine, bromine, hydroxy, cyano, trifluoromethyl, nitro, hydroxycarbonyl-, (C₁-C₆)-alkoxy, (C₁-C₆)-alkoxy-(C₁-C₆)-alkyl-, (C₁-C₆)-alkylcarbonyl-, (C₅-C₁₄)-arylcabonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylcarbonyl-, (C₁-C₆)-alkylaminocarbonyl-, (C₁-C₆)-alkanoylamino-, (C₁-C₆)-alkylsulfonylamino-, (C₅-C₁₄)-aryl-sulfonylamino-, (C₁-C₁₄)-alkylamino-, di((C₁-C₆)-alkyl)amino-, (C₁-C₆)-alkylsulfonyl-, (C₅-C₁₄)-arylsulfonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylsulfonyl-, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl, where all Bs are independent of one another and can be identical or different;

X is selected from the group consisting of hydrogen, NH₂, -NH-C(O)-R⁶ and OH;

Y is hydrogen,

Z is N;

R¹ and R² are individually selected from the group consisting of hydrogen, fluorine, chlorine, cyano, nitro, (C₁-C₁₀)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-

(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl-, R⁶-O-R⁷, R⁶-S(O)_p-R⁷, R⁶S(O)₂NHR⁷, R⁶OC(O)NHR⁷ and R⁶R⁶⁺N-R⁷;

R³ is selected from the group consisting of hydrogen, fluorine, chlorine, cyano, nitro, (C₁-C₁₈)-alkyl, (C₂-C₁₈)-alkenyl, (C₂-C₁₈)-alkenyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl-, R⁶-O-R⁷, R⁶R⁶⁺R⁷, R⁶C(O)-O-R⁷, R⁶C(O)R⁷, R⁶OC(O)R⁷, (R⁶N(R⁶)C(O)OR⁷, R⁶S(O)_pN(R⁵)R⁷, R⁶OC(O)N(R⁵)R⁷, R⁶C(O)N(R⁵)R⁷, R⁶N(R⁶⁺)C(O)N(R⁵)R⁷, R⁶N(R⁶⁺)S(O)_pN(R⁵)R⁷, R⁶S(O)_pR⁷, R⁶SC(O)N(R⁵)R⁷, R⁶N(R⁶⁺)C(O)R⁷ and R⁶N(R⁶⁺)S(O)_pR⁷, ~~where alkyl can be mono-unsaturated or poly-unsaturated and~~ where alkyl, cycloalkyl, aryl, and heteroaryl can be monosubstituted or polysubstituted by a member selected from the group consisting of R⁶, fluorine, chlorine, bromine, cyano, trifluoromethyl, R⁶R⁶⁺NR⁷, nitro, R⁶OC(O)R⁷, R⁶C(O)R⁷, R⁶N(R⁶⁺)C(O)R⁷, R⁶N(R⁶⁺)S(O)_pR⁷ and R⁶-O-R⁷, and where the R³S are independent of one another and can be identical or different;

and where all R³ are independent of one another and can be identical or different;

R⁴ is selected from the group consisting of -C(O)R⁸, -C(S)R⁸, -S(O)_pR⁸, -S(O)_pR⁸;

R⁵ is selected from the group consisting of hydrogen, (C₁-C₁₀)-alkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl- and (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, where all R⁵ are independent of one another and can be identical or different;

R⁶ and R⁶⁺ are individually selected from the group consisting of hydrogen, (C₁-C₁₈)-

alkyl, (C₃-C₁₈)-alkyl, (C₃-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl and (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl- where aryl, heteroaryl, cycloalkyl and alkyl can be substituted one, two or three times by individual substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, trifluoromethyl, nitro, hydroxycarbonyl-, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkoxy-(C₁-C₆)-alkyl-, (C₁-C₆)-alkoxycarbonyl-, (C₁-C₆)-alkylcarbonyl-, (C₁-C₆)-alkylaminocarbonyl-, (C₁-C₆)-alkoxy-(C₁-C₆)-alkoxy-, (C₅-C₁₄)-arylcarbonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylcarbonyl-, (C₁-C₆)-alkanoylamino-, (C₅-C₁₄)-arylsulfonylamino-, (C₁-C₆)-alkylsulfonylamino-, (C₁-C₆)-alkylamino-, di((C₁-C₆)-alkyl)amino-, (C₁-C₆)-alkylsulfonyl, (C₁-C₆)-alkylaminosulfonyl-, (C₅-C₁₄)-arylaminosulfonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylaminosulfonyl, (C₅-C₁₄)-arylsulfonyl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylsulfonyl, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl;

R⁷ is (C₁-C₄)-alkanediyl or a direct bond, where all R⁷ are independent of one another and can be identical or different;

R⁸ and R⁸⁺ are individually selected from the group consisting of hydroxy, (C₁-C₈)-alkoxy, (C₅-C₁₄)-aryl-(C₁-C₄)-alkoxy-, (C₅-C₁₄)-aryloxy, (C₁-C₈)-alkylcarbonyloxy-(C₁-C₄)-alkoxy-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkylcarbonyloxy-(C₁-C₈)-alkoxy-, NR⁶R⁶, (di-((C₁-C₈)-alkyl)amino)carbonylmethyloxy-, (di((C₅-C₁₄)-aryl-(C₁-C₈)-alkyl)amino)carbonylmethyloxy-, (C₅-C₁₄)-arylamino-, an amino acid, N-((C₁-C₄)-alkyl-piperidin-4-yloxy-, 2-methylsulfonylethoxy-, 1,3-thiazol-2-ylmethyloxy-, 3-pyridylmethyloxy-, 2-(di-((C₁-C₄)-alkyl)amino)-ethoxy and Q⁻(CH₃)₃N⁺-CH₂-CH₂-O- in which Q⁻ is a physiologically tolerable anion;

n is zero, one, two, three, four or five;

m is zero, one, two, three, four or five;

i is zero or one;

q is zero, one or two;

r is zero, one or two;

s is zero, one two or three;

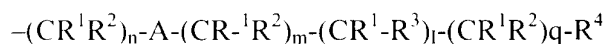
t is zero, one, two, three, four, five, six, seven or eight;

p is zero, one or two, where all numbers p are independent of one another and can be identical or different;

in all their stereoisomeric forms and mixtures thereof in all ratios, and their non-toxic, physiologically tolerable salts ~~and their prodrugs~~.

Claim 3 (currently amended)

A compound of claim 1, wherein G is



A is selected from the group consisting of a direct bond,

-C(O)NR⁵-, -NR⁵C(O)-, -C(O)-, -NR⁵- and (C₅-C₁₄)-arylene where in the arylene, one, two, three, four or five ring carbon atoms can be replaced by a heteroatom selected from the group consisting of nitrogen, oxygen and sulfur;

B is selected from the group consisting of (C₁-C₆)-alkyl, chlorine, hydroxy, cyano, trifluoromethyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkylcarbonyl-, (C₁-C₆)-alkanoylamino-, (C₁-

C₆)-alkylamino and di((C₁-C₆)-alkyl)-amino-, where all Bs are independent of one another and can be identical or different:

X is hydrogen;

Y is hydrogen,

Z is N;

R¹ and R² are individually selected from the group consisting of hydrogen, (C₁-C₄)-alkyl,

R⁶S(O)-NHR⁷ and R⁶OC(O)NHR⁷;

R³ is selected from the group consisting of hydrogen, (C₁-C₁₂)-alkyl, (C₂-C₁₈)-alkenyl,

(C₂-C₁₈)-alkynyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₆)-alkyl, (C₅-C₁₄)-aryl-

(C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₆)-alkyl-,

RR⁶-O-R⁷, R⁶-S(O)_p-R⁷, R⁶S(O)₂NHR⁷, R⁶OC(O)NHR⁷ and R⁶R^{6'}N-R⁷;

R³ is selected from the group consisting of hydrogen, fluorine, chlorine, cyano, nitro, (C₁-

C₁₈)-alkyl, (C₂-C₁₈)-alkenyl, (C₂-C₁₈)-alkenyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-

(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-

heteroaryl-(C₁-C₈)-alkyl-, R⁶R⁶N-R⁷, R⁶S(O)_pN(R⁵)R⁷, R⁶OC(O)N(R⁵)R⁷, and

R⁶C(O)N(R⁵)R⁷, ~~where alkyl can be mono-unsaturated or poly-unsaturated and~~ where

alkyl, cycloalkyl, aryl, and heteroaryl can be monosubstituted or polysubstituted by a

member selected from the group consisting of R⁶, fluorine, chlorine, trifluoromethyl,

R⁶C(O)R⁷ and R⁶-O-R⁷;

R⁴ is -C(O)R⁸;

R^5 is hydrogen or (C₁-C₄)-alkyl, where all R^5 s are independent of one another and can be identical or different;

R^6 and $R^{6'}$ are individually hydrogen, (C₁-C₁₂)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl and (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl- where aryl, heteroaryl, cycloalkyl and alkyl can be substituted one, two or three times by individual substituents selected from the group consisting of fluorine, chlorine, bromine, cyano, trifluoromethyl, nitro, hydroxycarbonyl-, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkylamino-, di-((C₁-C₆)-alkyl)amino-, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl, and where all R^6 s and $R^{6'}$ s are independent of one another and can be identical or different;

R^7 is (C₁-C₂)-alkanediyl or a direct bond, where all R^7 s are independent of one another and can be identical or different;

R^8 is hydroxy or (C₁-C₆)-alkoxy,

n is zero, one, two, three, four or five;

m is zero or one;

i is zero or one;

q is zero or one;

r is zero or one;

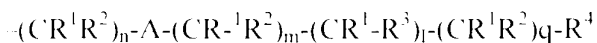
s is zero, one or two;

t is zero, one, two, three or four;

in all their stereoisomeric forms and mixtures thereof in all ratios, and their non-toxic physiologically tolerable salts.

Claim 4 (currently amended)

A compound of claim 1, wherein G is



A is a direct bond:

B is (C₁-C₆)-alkyl or hydroxy, where all Bs are independent of one another and can be identical or different:

X is hydrogen:

Y is hydrogen:

Z is n:

R¹ and R² are individually selected from the group consisting of hydrogen, (C₁-C₄)-alkyl,

R⁶S(O)-NHR⁷ and R⁶OC(O)NHR⁷;

R³ is selected from the group consisting of hydrogen, (C₁-C₁₂)-alkyl, (C₂-C₁₈)-alkenyl,

(C₂-C₁₈)-alkynyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₆)-alkyl, (C₅-C₁₄)-aryl-

(C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl, (C₅-C₁₄)-heteroaryl-(C₁-C₆)-alkyl-,

R⁶R⁶N-R⁷, R⁶S(O)_pN(R⁵)R⁷, R⁶OC(O)N(R⁵)R⁷, and R⁶C(O)N(R⁵)R⁷, ~~where alkyl can be~~

~~mono-unsaturated or poly-unsaturated and~~ where alkyl, cycloalkyl, aryl, and heteroaryl

can be monosubstituted or polysubstituted by a member selected from the group

consisting of R⁶, fluorine, chlorine, trifluoromethyl, R⁶C(O)R⁷ and R⁶-O-R⁷;

R⁴ is -C(O)R⁸;

R⁵ is hydrogen or (C₁-C₄)-alkyl;

R⁶ and R⁶⁺ are individually hydrogen, (C₁-C₁₂)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl or (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl- where aryl, heteroaryl, cycloalkyl and alkyl can be substituted one, two or three times by at least one substituent selected from the group consisting of fluorine, chlorine, bromine, cyano, trifluoromethyl, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkylamino-, di-((C₁-C₆)-alkyl)amino-, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl, and where all R⁶'s and R⁶⁺'s are independent of one another and can be identical or different;

R⁷ is a direct bond;

R⁸ is hydroxy or (C₁-C₄)-alkoxy;

n is zero, one or two;

m is zero or one;

i is zero or one;

q is zero or one;

r is zero or one;

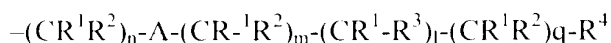
s is zero, one or two;

t is zero;

in all their stereoisomeric forms and mixtures thereof in all ratios, and their non-toxic, physiologically tolerable salts.

Claim 5 (previously amended)

A compound of claim 1 wherein G is



A is a direct bond;

X is hydrogen;

Z is N;

R^1 and R^2 are hydrogen or (C₁-C₂)-alkyl, where all R^1 s and R^2 s are independent of one another and can be identical or different;

R^3 is selected from the group consisting of $\text{R}^6\text{R}^{6+}\text{N}-\text{R}^7$, $\text{R}^6\text{S}(\text{O})_2\text{N}(\text{R}^5)\text{R}^7$ and $\text{R}^6\text{C}(\text{O})\text{N}(\text{R}^5)\text{R}^7$;

R^4 is $-\text{C}(\text{O})\text{R}^8$;

R^5 is hydrogen or (C₁-C₂)-alkyl;

R^6 and R^{6+} are individually selected from the group consisting of hydrogen, (C₁-C₁₂)-alkyl, (C₁-C₁₂)-alkyl, (C₃-C₁₄)-cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl, (C₅-C₁₄)-heteroaryl and (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl- where aryl, heteroaryl, cycloalkyl and alkyl can be substituted one, two or three times by at least one substituent selected from the group consisting of fluorine, chlorine, bromine, cyano, trifluoromethyl, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkylamino-, di-((C₁-C₆)-alkyl)amino-, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl, and where all R^6 s and R^{6+} s are independent of one another and can be identical or different;

R^7 is a direct bond;

R⁸ is hydroxy or (C₁-C₄)-alkoxy;

n is zero, one or two;

m is zero or one;

i is zero or one;

q is zero or one;

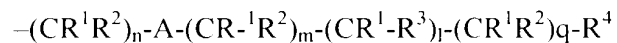
r is zero;

s is zero;

t is zero;

in all their stereoisomeric forms and mixtures thereof in all ratios, and their non-toxic, physiologically tolerable salts.

Claim 6 (previously amended)



A is a direct bond;

X is hydrogen;

Z is N;

R¹ and R² are hydrogen;

R³ is R⁶S(O)₂N(R⁵)R⁷ and R⁶C(O)N(R⁵)R⁷;

R⁴ is -C(O)R⁸;

R⁵ is hydrogen;

R⁶ is selected from the group consisting of (C₁-C₁₂)-alkyl, (C₁-C₁₂)-alkyl, (C₃-C₁₄)-

cycloalkyl, (C₃-C₁₄)-cycloalkyl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-aryl-, (C₅-C₁₄)-aryl-(C₁-C₈)-alkyl-, (C₅-C₁₄)-heteroaryl and (C₅-C₁₄)-heteroaryl-(C₁-C₈)-alkyl- where aryl, heteroaryl, cycloalkyl and alkyl can be substituted one, two or three times by at least one substituent selected from the group consisting of fluorine, chlorine, bromine, cyano, trifluoromethyl, (C₁-C₆)-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkylamino-, di-((C₁-C₆)-alkyl)amino-, (C₅-C₁₄)-aryl and (C₅-C₁₄)-heteroaryl.

R⁷ is a direct bond:

R⁸ is hydroxy or (C₁-C₄)-alkoxy:

n is one;

m is zero;

i is one;

q is zero;

r is zero;

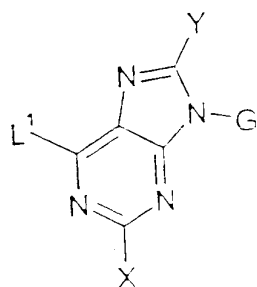
s is zero;

t is zero;

in all their stereoisomeric forms and mixtures thereof in all ratios, and their non-toxic, physiologically tolerable salts.

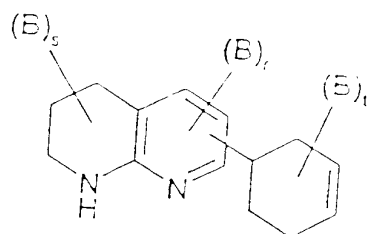
Claim 7 (previously amended)

A process for the preparation of a compound of claim 1 comprising reacting a compound of the formula VI



VI

with a compound of the formula VIIa or of formula VIIb



VIIb

wherein L^1 is a cleaving group and B, G, X, Y, r, s and t are defined as in claim 1 but wherein functional groups can also be present in the form of precursor groups or in protected form.

Claim 8 (currently amended)

A pharmaceutical composition, comprising an amount of a compound of claim 1 sufficient to ~~act as a vitronectin receptor antagonist~~ treat osteoporosis and a pharmaceutically acceptable carrier.

Claims 9 and 10 (previously cancelled)

Claim 11 (currently amended)

A method of ~~inhibiting vitronectin binding~~ treating osteoporosis in warm-blooded animals comprising administering to warm-blooded animals in need thereof an amount of a compound of claim 1 sufficient to ~~prevent~~ treat osteoporosis ~~vitronectin binding~~.